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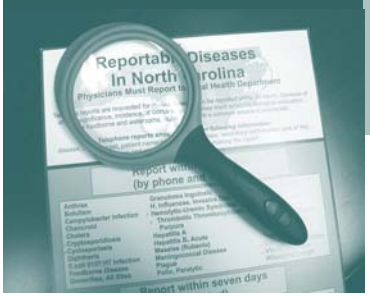
Communicable Disease Control UPDATE

MECKLENBURG COUNTY HEALTH DEPARTMENT

A Quarterly Publication



Disease Detectives

Inside this issue:

"It is a time for consumers to become aware of what is in the animal products they eat. "

BSE in the USA

In December 2003 federal health authorities have reported the first diagnosed case of Bovine Spongiform Encephalopathy (BSE or Mad Cow Disease) in the United States. The affected cow originated in a herd of cattle that was raised in Canada and sold to US dairymen.

Dairy cows after varying numbers of years begin to produce less milk or become ill and are sold to slaughter houses to be entered into the human food chain as beef products (steak, hamburger, etc.). Since this cow tested positive for the prion (pree-on) disease known as BSE, sick cows are no longer slaughtered for human food.

BSE is a progressive lethal disease of the central nervous system of beef and dairy cattle. The brain is affected by vacuoles (clear holes) that result in the brain appearing much like a sponge—hence the term "spongiform." The danger for humans is that evidence continues to mount of a causal relationship between cows with BSE and humans acquiring a similar Transmissible Spongiform Encephalopathy (TSE) known as Creutzfeldt-Jakob Disease (CJD).

In the ongoing study of BSE, bioassays have discovered the prion organism in the cow's brain, retina, spinal cord, dorsal root ganglia (nerve tissue near the backbone), and in bone marrow. It is believed that humans consuming any of these tissues are at risk of acquiring the human form of BSE known as Creutzfeldt-Jakob Disease. Since there is no known cure for either BSE or CJD, the disease is invariable fatal to both cattle and humans in 3 to 12 months after symptoms begin. Physicians diagnose CJD on the basis of neurological symptoms such as confusion, progressive dementia, and ataxia that eventually progress to myoclonic jerks. The medical diagnosis of CJD is verified by immunodiagnostic testing of brain tissue collected by biopsy or autopsy.

The incubation period for CJD in humans from the time of prion ingestion to onset of symptoms can be fifteen months to more than thirty years. Those humans known to consume brain tissue of an infected animal may experience an incubation period of less than ten years.

The most important question of all is how to protect oneself from CJD. The National Centers for Infectious Diseases and Health Canada have issued these guidelines for avoidance of BSE:

- Whole cuts of muscle meats without bone (roasts and steaks) provide lower risk than do processed meats in sausage, burgers, or pâtés.
- Avoid high-risk items that may contain brain or spinal cord parts, like minced meat. Brain and nerve tissues contain large concentrations of prions.
- Cooking does not kill the BSE pathogen as it does other bacteria and viruses.
- Milk and other dairy products are not believed to transmit the BSE pathogen.

This is not necessarily a time to shun all meat items. It is a time for consumers to become aware of what is in the animal products they eat and shun all brain, neural and bone marrow products.
(References furnished on request)

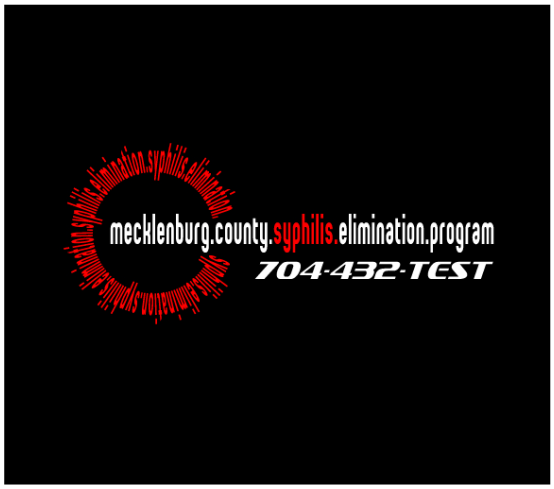
For more information contact Al Piercy at piercaw@co.mecklenburg.nc.us or 704.336.6440.

Syphilis Transmitted through the World Wide Web?

Overall syphilis rates have been steadily declining in Mecklenburg County, mirroring rates in the rest of the US. Increased rates occurred only among white and Hispanic men who have sex with men (MSM). Also of concern is that these increases are taking place primarily in cities with populations >200,000.

A rapidly increasing method for meeting sex partners is the Internet. During the syphilis outbreak in San Francisco from 1999 to 2003, the Internet quickly became the most common venue for meeting sex partners among those diagnosed with early syphilis. For disease investigation, good things about the Internet is that at least an email address is known. Also, the Internet is by nature an easy way of gaining knowledge about Syphilis and HIV and therefore can provide an opportunity for outreach and education. That little bit of information can provide an opportunity to quickly contact an otherwise anonymous sex partner and potentially stop the spread of infection. On the other hand, there are concerns about maintaining patient confidentiality and not having messages discarded as spam or junk email.

What does this mean for Mecklenburg? To continue reducing our rate of syphilis, we have to be aware of trends that are taking place in the rest of the nation. The Health Department is continuing to target its public health awareness and education efforts to populations that have traditionally been associated with high morbidity. An impact has been made and rates of syphilis have been reducing among non-Hispanic blacks and women. At the same time we have to start developing and implementing programs that will be effective for MSM. A change in risk taking behavior has occurred in MSM since the advent of highly active antiretroviral therapy (HAART). Perhaps the fear of dying from AIDS has waned. The programs and messages that worked in the past must be adjusted to deal with the new reality since HAART was introduced as a successful therapy in 1996.



Ann White, Coordinator of the Mecklenburg County Syphilis Elimination Project, says that MCSEP is taking steps now to partner with other Community Based Organizations (CBO) to set up testing and outreach at MSM bars and meeting places. MCSEP is also preparing to work with internet service providers to provide links and active outreach at chat rooms and MSM web sites. Currently there are no federal guidelines from CDC for contact tracing of sex partners over the Internet. (References provided on request.)

For more information, contact Mike Rogers at rogermp@co.mecklenburg.nc.us or 704.336.3737.

Did You Know...

...that Communicable Disease Control has been meeting with airport, airlines, and custom officials to establish procedures for managing SARS and other communicable disease issues?

...that the ACIP recommends the use of Td, not tetanus toxoid (TT), for all indications in adults? A quick survey of all the EDs and Urgent Care Centers in the county shows that all of the EDs and 6 of the Urgent Cares routinely use adult Td. One urgent care uses both Td and TT depending on MD orders, and 1 Urgent Care will use either one depending on insurance coverage.

...that a quick, portable reference guide to the newly released "Recommended Childhood and Adolescent Immunization Schedule—US, January—June 2004" can be downloaded free for the Palm OS 3.1 or higher at http://immunizationed.org/anypage.aspx?pagename=shotspalm ?

This periodical is written and distributed quarterly by the Communicable Disease Control Program of the Mecklenburg County Health Department for the purpose of updating the medical community in the activities of Communicable Disease Control. Program members include: Health Director—Peter Safir; Medical Director—Dr. Stephen R. Keener; Health, Environmental Health Administrator—Bobby Cobb; Director, CD Control—Carmel Clements; Program Chief—Wanda Locklear; CD Control nurses—Shannon Gilbert, Nancy Hill, Jane Hoffman, Lorraine Houser, Monica O'Lenic, Elizabeth Quinn; TB Outreach nurses—Marcia Frechette (also Adult Day Health), Faye Lilieholm; Child Care nurse—Gail Mills; Rabies/Zoonosis Control—Al Piercy; Program Chief STD/HIV Surveillance—Carlos McCoy; Syphilis Coordinator— Ann White; DIS—Mary Ann Curtis, Michael Rogers, Lavon Sessoms; Regional Surveillance Team—Bobby Kennedy, Belinda Worsham; Office Assistants—Vivian Brown, Linda Kalman, Lisa Liner.

Lorraine Houser
Editor

Diphtheria Death in the USA

A previously healthy 63-year-old man who traveled to rural Haiti for one week last year to help build a church died of respiratory diphtheria less than 3 weeks after returning home to Pennsylvania. The traveler reported to the emergency room two days after returning from Haiti with persistent sore throat and difficulty swallowing. He subsequently died after 17 days of illness. The patient reported he had never been vaccinated against diphtheria. Antibiotics were prescribed for his close contacts and they were offered a diphtheria toxoid vaccine if there was no history of vaccination in the previous five years. Fortunately, none of his close contacts became ill.

Diphtheria is an acute bacterial disease involving primarily the tonsils, pharynx, larynx, nose, skin and occasionally, mucous membranes. A patch or patches of an adherent grayish membrane is usually present with surrounding inflammation. Respiratory diphtheria can be severe or fatal in unvaccinated persons.

Diphtheria remains endemic in most third world countries including Haiti. All persons, including persons traveling outside the United States, should ensure that they are up-to-date with all recommended vaccinations including a primary series of diphtheria toxoid-containing vaccine and a booster dose within the preceding 10 years.

Sporadic cases of respiratory diphtheria continue to occur in residents of the United States, primarily in adults. During 1980-2001, fifty-three cases of probable or confirmed respiratory diphtheria were reported in the United States. A national study done from 1988-1994 indicated that only 30% of adults ages 60-69 years have adequate immunity against diphtheria. This study reveals a steady decline in immunity to diphtheria with age.

For more information, contact Jane Hoffman at hoffmlj@co.mecklenburg.nc.us or 704.336.5490.

The last reported case of diphtheria in North Carolina was in 1974 in Davie County in a 3 year old male. The last reported case in Mecklenburg County was in 1958 in a 5 year old male.

FAQ

Q. **At the ACIP (Advisory Committee on Immunization Practices) October 2003 meeting, the ACIP voted to change the minimum age at which the last dose of hepatitis B vaccine (either the third or fourth dose) can be given to 24 weeks of age. The recommendation for a minimum age of 24 weeks is a change from the minimum age of 6 months. How does this affect administration guidelines set forth by the North Carolina Administrative Code which states the following: "The third dose of hepatitis B vaccine shall not be administered prior to 6 months of age"?**

A. Until the law is changed in North Carolina, medical providers must adhere to guidelines as set forth by North Carolina Administrative Code (10A NCAC 41 .0401(7)(A)).

Q. **If laboratories are required to report cases of Hepatitis B? Why does my medical office also have to report to the Health Department?**

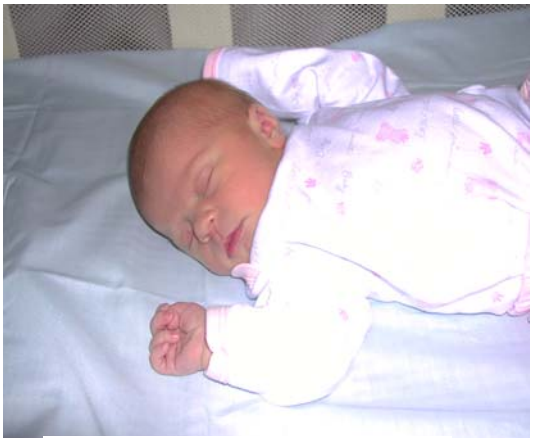
A. Laboratories are required to report positive test results to the Division of Public Health in Raleigh. They in turn send these reports to the local health departments for investigation once the appropriate county has been determined. This process varies in length from several weeks to several months.

Physicians are required to report positive test results to the local health department. Investigations are initiated immediately thus eliminating this lag time. This allows for prompt contact identification, follow-up and institution of preventive treatment measures. (See page 7 for help with interpreting the results of Hepatitis B serology).

New Requirements in the Child Care Law

The NC General Assembly passed child care bills in 2003 that will impact most child care centers and homes in North Carolina.

House Bill 152, Reducing the Risk of Sudden Infant Death Syndrome (SIDS) in Child Care *Effective December 1, 2003*
This bill applies to all child care providers caring for babies 12 months of age or younger and is **intended** to reduce SIDS risk factors in child care facilities. It requires providers to place babies to sleep on their backs unless there is a written waiver from a health care professional specifying a different sleep position. A written waiver from a parent for a different sleep position will be allowed once the infant is six months old. Providers must develop safe sleep policies and parents must sign a statement indicating that they have received a copy of the sleep policy before the child is enrolled. Providers and infant caregivers will be required to take training in safe sleep practices. This training is a 1½ hour *Infant/Toddler Safe Sleep & SIDS Risk Reduction in Child Care* (ITS-SIDS) and will be available statewide to child care providers by the end of 2004.



Kathryn "Back to Sleep"

House Bill 1063 – Information for Parents *Effective October 1, 2003*
This bill applies to all child care centers and homes. This law reinforces giving parents information about how to request child care records. Caregivers must also provide a copy of the summary of the N. C. Child Care Law before enrollment and parents must sign a statement that they have received a copy of this information.

Senate Bill 226 – Unauthorized Medications (Kaitlyn's Law) *Effective December 1, 2003*
Applies to all child care centers and family care homes. This bill makes it illegal for providers to intentionally give medication to a child without the parent's authorization. Violations will result in a Class A1 misdemeanor. If giving unauthorized medications result in a serious injury, the violator is subject to a class F felony. Exceptions to this bill include a medical emergency with medical care instructions.

Senate Bill 877 – Illegal Child Care Facilities *Effective December 1, 2003.*
Applies to illegal child care operators. Violations include a Class 1 felony. However, if a child is seriously injured in the illegal program a Class H felony applies. If the operator has a prior conviction and operates an illegal child care program, a Class H felony applies.

The Child Care Commission has proposed some changes to the child care licensing rules to implement these laws, along with some other revisions. If adopted, these changes would become effective May 1, 2004.

For more information, contact Gail Mills at millsgb@co.mecklenburg.nc.us or 704.336.5076.

Immunizations at the Health Department

The following is the Flat Fee Schedule of immunizations offered by the Health Department. Flat Fees are charges without consideration of income or family size. All required immunizations for children under the age of 18 are given free of charge. Appointments are required and can be made by calling 704.336.6500.

FluMIst $40.00
Flu Vaccine (child 6—35 months) $20.00
Flu Vaccine (3 yrs.—adult) $20.00
Pneumonia Vaccine $25.00
Menomune $65.00
Hepatitis B $65.00
Hepatitis A (Adults) $60.00
Hepatitis A (child/adolescent) $32.00
Pre Rabies $164.00
Td **free of charge for all adults**

Td is not given for wound management. **Post-exposure rabies vaccine** is not provided by the Health Department. The Health Department does not provide immunizations required for travel.

Communicable Diseases Reported to the
N.C. Department of Health & Human Services
Mecklenburg County Residents: December 2003
(Reflects Report Dates Not Always Onset Dates)

DISEASES	[1]December 2003	[1]December 5-yr. Average	[1]YTD	[1]YTD 5-yr. Average
[2]AIDS	1	25	46	73
Campylobacter Infection	1	3	82	50
Creutzfeldt-Jakob Disease (CJD)	1	0	1	0
Cryptosporidiosis	4	0	22	9
Dengue	0	0	1	0
E. coli Shiga toxin-producing	0	0	4	10
Encephalitis, arboviral	0	0	5	0
Enterococci, *Vancomycin-resistant ("VRE")*	0	0	22	14
Other or Unknown Foodborne	0	0	1	1
Hemolytic-Uremic Syndrome Thombotic Thrombocytopenic Purpura	0	0	0	1
Hemophilus influenzae, *Invasive Disease*	0	0	7	6
Hepatitis, Viral:				
Type A	0	1	21	22
Type B, Acute	4	2	44	40
Perinatal Hepatitis B	1	0	2	0
Type B, Carrier	18	7	293	143
Type C, Acute	0	0	1	2
[3]HIV Infection	12	37	174	200
Legionellosis	0	0	2	1
Listeriosis	1	0	3	1
Lyme Disease	4	0	20	3
Malaria	0	0	8	5
Meningitis, Pneumococcal	0	1	6	5
Meningococcal Disease	0	0	5	3
Mumps	0	0	0	1
Rabies:[4]*Animal*	2	2	48	22
Rocky Mountain Spotted Fever	1	0	9	8
Rubella	0	0	0	1
Salmonellosis	3	8	205	108
Shigellosis	2	8	768	39
Streptococcal Infection, *Group A Invasive Disease*	0	0	19	8
Transmissible Spongiform encephalopathies (CJD/CJD)	0	0	1	0
Typhoid, Acute	0	0	4	0
Whooping Cough (Pertussis)	0	1	6	8
Tuberculosis	0	3	47	58
Chlamydia (Laboratory confirmed)	224	131	3235	2044
Gonorrhea	129	107	2104	1678
Nongonococcal Urethritis (NGU)	0	13	142	311
Pelvic Inflammatory Disease (PID)	0	14	40	264
Syphilis	4	8	49	125
Congenital Syphilis	0	0	0	1

Statistics compiled by PH Epidemiology and MCHD Communicable Disease. December 2003
Reportable Diseases not shown have zero incidence.

Reporting Communicable Diseases – Mecklenburg County

To request N.C. Communicable Disease Report Cards, telephone 704.336.2817

Mark all correspondence "CONFIDENTIAL"

Tuberculosis:

TB Clinic — 704.432.2490
Mecklenburg County Health Department — 704.432.2496
2845 Beatties Ford Road — FAX 704.432.2493
Charlotte, NC 28216

Sexually Transmitted Diseases, HIV, & AIDS:

Regional Office HIV/STD Surveillance — 704.336.6480
Mecklenburg County Health Department — FAX 704.336.6200
700 N. Tryon Street, Suite 214
Charlotte, NC 28202

All Other Reportable Communicable Diseases including Viral Hepatitis A, B & C:

Report to any of the following nurses:

Shannon Gilbert, RN — 704.353.1270
Nancy Hill, RN, — 704.336.5498
Jane Hoffman, RN, — 704.336.5490
Lorraine Houser, RN — 704.336.6438
Monica O'Lenic, RN — 704.336.6436
Elizabeth Quinn, RN — 704.336.5398
Communicable Disease Control — FAX 704.353.1202
Mecklenburg County Health Department
700 N. Tryon Street, Suite 271
Charlotte, NC 28202

Animal Bite Consultation / Zoonoses / Rabies Prevention:

Al Piercy, RS — 704.336.6440
Communicable Disease Control — FAX 704.353.1202
Mecklenburg County Health Department
700 N. Tryon Street, Suite 272
Charlotte, NC 28202
or State Veterinarian, Lee Hunter, DVM — 919.733.3410
State after hours — 919.733.3419

Child Daycare Nurse Consultant:

Gail Mills, RN — 704.336.5076
Communicable Disease Control — FAX 704.353.1202
Mecklenburg County Health Department
700 N. Tryon Street, Suite 271
Charlotte, NC 28202

Suspected Food borne Outbreaks / Restaurant, Lodging, Pool and Institutional Sanitation:

Food & Facilities Sanitation — 704.336.5100
Mecklenburg County Health Department — FAX 704.336.5306
700 N. Tryon Street, Suite 208
Charlotte, NC 28202

Mecklenburg County Health Department

Interpreting Hepatitis B Serology

Tests	Results	Interpretations
HBsAg anti-HBc anti-HBS	negative negative negative	susceptible
HBsAg anti-HBc anti-HBs	negative positive positive	immune due to natural infection
HBsAg anti-HBc anti-HBs	negative negative positive	immune due to hepatitis B vaccination
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	acute infection
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	chronic infection
HBsAg anti-HBc anti-HBs	negative positive negative	four interpretation possible

1. May be recovering from acute infection.
2. May be distantly immune and test not sensitive enough to detect very low level of anti-HBs in serum.
3. May be susceptible with a false positive anti-HBc.
4. May be undetectable level of HBsAg present in serum and the person is actually a carrier.

Taken from National Center of Infectious Diseases

More on MOST

MOST, the Health Department's **M**edical **O**nline **S**urveillance **T**ool, was used extensively by Mecklenburg and the State to monitor the incidence of influenza in our region during this winter season.

Monitored daily were all respiratory plus fever presentations in all of the county's Emergency Departments and urgent care centers. Mecklenburg mirrored the state's statistics with the flu season beginning around 11/26—11/27 and peaking 12/17 and 12/18. Incidence of the flu began a steady decline about a week later and continues.

The total number of urgent care and ED visits dropped dramatically on January 26th. "Based on total numbers, January 26th was the healthiest day in the county in over a year" said Lorraine Houser, RN who monitors **MOST** daily. "It took me a while to realize that was the day of our snow and ice storm and people just stayed home."

For more information on MOST, contact Lorraine Houser at houselm@co.mecklenburg.nc.us or 704.336.6438.

"January 26th was the healthiest day in the county in over a year."